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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,624	03/02/2004	Sebastian Hoerold	2003DE104	3132

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CLARIANT CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
4000 MONROE ROAD  
CHARLOTTE, NC 28205

EXAMINER

KHAN, AMINA S

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/791,624		HOEROLD ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Amina Khan		1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendments, filed March 6, 2006, with respect to the objection to the abstract of the disclosure have been fully considered and are not sufficient. The examiner objects to abstract language "as defined in the specification". The examiner suggests that the applicant remove this claim language and the references to formula (I) and formula (II) to overcome the objection.

In view of applicant's amendments with respect to claim 1, the 35 USC 103(a) rejections of claims 1-6, 11-14, 16, 17, 20-24, 26-29 over Schlosser et al. (US 6,547,992) in view of Brewer et al. (US 6,649,704), claims 7-10 over Schlosser et al. (US 6,547,992) in view of Brewer et al. (US 6,649,704) and in further view of Schlosser et al. (US 6,255,371) and claims 15, 25 and 30 over Schlosser et al. (US 6,547,992) in view of Brewer et al. (US 6,649,704) and in further view of Mogami et al. (US 5,684,071) are rendered moot. New ground(s) of rejection are recited below.

The indicated allowability of claims 18 and 19 is withdrawn in view of the newly discovered reference(s) recited below. Rejections based on the newly cited reference(s) follow.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: claim 1 has extra commas before the language "as component B" and "as component E. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18,23,24 and 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "from 0-50% by weight of component B" in line 1. There is insufficient antecedent basis for this limitation in the claim or in claim 1 on which it depends. Claim 1 recites "as component B, from 10-75% by weight of a nitrogen-containing synergist or of a phosphorous/nitrogen flame retardant". The range recited in claim 18 is outside that of the parent claim 1.

Claims 23 and 24 recite the limitation "The flame-retardant plastic molding composition as claimed in claim 1" in line 1. There is insufficient antecedent basis for this limitation in the claim or in claim 1 on which it depends. Claim 1 recites "A flame retardant and stabilizer combined". The examiner interpreted these claims to be dependent on claim 20.

Claims 27-30 recite the limitation "The polymer composition as claimed in claim 26" in line 1. There is insufficient antecedent basis for this limitation in the claim or in claim 26 on which it depends. Claim 26 recites "A polymer compound".

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12,15 and 18-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlosser et al. (US 6,255,371) in view of Schlosser et al. (US 6,964,746). Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Schlosser '371 et al. teaches flame retardants comprising a phosphinate of the formula (I) and/or a diphosphinate of the formula (II) and or polymers of these wherein R1 and R2 are identical or different, and are C1-C6-alkyl, linear or branched, or phenyl, methyl ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, n-pentyl or phenyl, R3 is methylene, ethylene, n-propylene, etc. and M is calcium aluminum or zinc (columns 1, lines 45-68; column 2, lines 1-46) as claimed in claims 2-5. Schlosser '371 further teaches flame retardants comprising condensation products of melamine such as melem, melam, melon or reaction products of melamine with polyphosphoric acid such as melamine polyphosphate (column 3, lines 60-65; column 2, lines 45-60) as claimed in claims 6-10. Schlosser '371 et al. further teaches flame retardants comprising chalk (column 7, lines 20-25) and that the phosphinic acids are prepared in aqueous solutions with metal carbonates, metal hydroxides, or with metal oxides (column 6, lines 30-36) as claimed in claim 1. Schlosser '371 et al. further teaches plastic molding compositions suitable for producing moldings, films, filaments or fibers (column 7, lines 27-30) comprising 1-30% of the flame retardant and stabilizer composition wherein the plastics are chosen from

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HIPS, polyphenylene ethers, polyamides, etc. (column 3, lines 15-45) as claimed in claims 18-29.

Schlosser '371 et al. does not teach compositions comprising N,N'-bispiperidinyl-1,3-benzenedicarboxamide and/or N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-1,3-benzenedicarboxamide as claimed in claim 1, ammonium polyphosphate as claimed in claims 11 and 12 and carbodiimides as claimed in claims 15,25 and 30. Schlosser '371 further is silent as to the claimed percentages of the individual components in a flame retardant/stabilizer composition and does not explicitly teach the claimed limitations. However, Schlosser '371 et al. teaches the claimed percentages of phosphinates and melamine condensation products in a plastics molding composition.

Schlosser '746 et al., in the analogous art of flame retarding molding compositions, teaches flame retardants comprising phosphinates of the formula (I) or formula (II), nitrogen containing synergists (column 6, lines 10-60), 5-90% phosphonites of structure (I),(II), and (III) (column 2, lines 67), 5-90% montan wax esters (column 3, lines 10-25), 5-90% N,N'-bispiperidinyl-1,3-benzenedicarboxamide and/or N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-1,3-benzenedicarboxamide (column 4, lines 1-10). Schlosser '749 et al. teaches flame-retardant molding compositions comprising (% by weight of the molding composition) 10% MEPAL, 5% MPP, 0.5% CaV 102, and 0.5% S-EED. If these values are converted to percentage by weight of just the flame retardant/stabilizer components the percentages are 62.5% MEPAL ( $10/16 \times 100$ ), 31.25% MPP ( $5/16 \times 100$ ) and 3.1% each of CaV 102 and S-EED ( $0.5/16 \times 100$ ) which meets the percentage claimed limitations of the components of claims 1,18 and 19.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the compositions taught by Schlosser '371 et al. by incorporating the components taught Schlosser '749 at the claimed percentages because Schlosser '749 teaches the utility of these components and percentages in producing effective flame retardant compositions and moldings. It is prima facie obvious to combine the components taught in the two references, each taught for the same purpose, to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423 when ingredients are well known and combined for their known properties, the combination is obvious absent unexpected results. A person of ordinary skill in the flame retardant art would expect combinations of these materials to behave in the same fashion as the individual materials, absent unexpected results.

Regarding the claimed percentage of metal carbonates (chalk), metal hydroxides, or with metal oxides, although they are not taught, it would have been obvious to one of ordinary skill in the art to arrive at the instantly claimed percentages since it only involves routine skill in the art to optimize a result effective variable. The burden is on the applicant to prove otherwise.

Claims 13,14,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlosser et al. (US 6,255,371) in view of Schlosser et al. (US 6,964,746) as applied to the claims recited above, and further in view of Schlosser et al. (US 6,547,992). Applicant cannot rely upon the foreign priority papers to overcome this

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rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Schlosser '371 et al. and Schlosser '746 et al. are relied upon as set forth above.

Schlosser '371 et al. and Schlosser '746 et al. do not teach nitrogen containing synergists claimed in claims 13 and 14 or the metal oxides, hydroxides and borates, silicates or stannates taught in claims 16 and 17.

Schlosser '992, in the analogous art of flame retardant compositions, teaches flame retardants comprising nitrogen synergists of formulas (III)-(VIII), specifically benzoguanamine, tris(hydroxyethyl)isocyanurate, etc. (column 2, lines 40-67; column 3, lines 1-45) as claimed in claims 13 and 14. Schlosser '992 et al. further teaches flame retardant compositions comprising metal hydroxides, oxides and carbonates, specifically zinc oxide and magnesium hydroxide (column 2, lines 15-38) as claimed in claims 16 and 17.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the flame retardant compositions and moldings taught by Schlosser '371 and '746 by incorporating the nitrogen synergists and metal hydroxides and oxides taught by Schlosser '992 because Schlosser'992 teaches the utility of adding these components to enhance the flame retarding ability of the composition and molding. It is prima facie obvious to combine the components taught in the references, each taught for the same purpose, to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423 when ingredients are well known and combined for their known properties, the



combination is obvious absent unexpected results. A person of ordinary skill in the flame retardant art would expect combinations of these materials to behave in the same fashion as the individual materials, absent unexpected results.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3,9,10 and 14-17 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 12, 15 and 25 of copending Application No. 10/669,921 in view of Schlosser et al. (US 6,964,746). Application '921 teaches components ABC of the instantly claimed invention, however does not teach the claimed percentages or components DEF. The patent, in the analogous art of flame retardants, teaches compositions comprising components DEF. It would have been obvious to one of ordinary skill in the art at the time the invention modify the composition taught in the application by incorporating the components taught within the patent to arrive at the instantly claimed invention since both references teach the importance of the individual components in preparing effective flame retardants. Regarding the claimed percentages, it would only require routine skill in the art to optimize the percentages to those instantly claimed.

This is a provisional obviousness-type double patenting rejection.

Claims 1,6,13,14,16 and 17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9 and 10 of U.S. Patent No. 6,547,992 in view of US Patent 6,964,746. Patent '992 teaches components ABC of the instantly claimed invention, however does not teach the claimed percentages or components DEF. Patent '746, in the analogous art of flame retardants, teaches compositions comprising components. It would have been obvious to one of

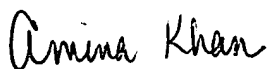
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ordinary skill in the art at the time the invention modify the composition taught in the application by incorporating the components taught within the patent to arrive at the instantly claimed invention since both references teach the importance of the individual components in preparing effective flame retardants. Regarding the claimed percentages, it would only require routine skill in the art to optimize the percentages to those instantly claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Amina Khan

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Patent Examiner

May 12, 2006

*Lorna M. Douyon*  
**LORNA M. DOUYON**  
**PRIMARY EXAMINER**